

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An immobilization method, comprising the steps of:
~~carrying out electrospray such that~~electrospraying a solution containing at least one objective substance ~~is supplied by supplying the solution~~ into a capillary and applying an electric voltage ~~is then applied on~~ to the solution to allow electrostatic atomization thereof, and

~~carrying out immobilization such that~~electrostatically immobilizing the objective substance in the atomized solution ~~atomized in the step of carrying out the electrospray is immobilized~~ on an object, which is to be coated and has an arbitrary shape, in a dried state by applying an electrostatic force while retaining functionality and/or activity of the objective substance to form a dried microstructure having a thickness on the order of nanometers;

wherein:

electrospraying further comprises at least one of shifting the capillary, changing a direction of spray by arbitrarily changing an angle of the capillary, and shifting the object to be coated; and

electrospraying further comprises adjusting a flow rate of the solution so as to establish the following constant relational expression between a pressure and the flow rate:

$P=b(V_c-V)+c$, wherein:

P represents pressure,

B and c represent constants,

V represents actual discharge volume, and

V_c represents a volume indicating value and $V_c = at$,
where a is a constant and t is an amount of time,
so that the objective substance is uniformly accumulated on a
more extent area of the material to be coated.

2-3. (Canceled)

4. (Currently Amended) The immobilization method as described in claim 1,
~~wherein the electrospray step also comprises the steps of~~ electrospraying further comprises:
_____ previously defining, on the basis of a kind of the solution, an analytical curve
representing a relationship between a duration of electrostatic atomization and a thickness of
the microstructure, and
_____ using the analytical curve corresponding to the kind of the solution used to
define the duration of the electrostatic atomization depending on a desired film thickness.

5-11. (Canceled)

12. (Currently Amended) The immobilization method as described in claim 1,
~~wherein the electrostatic atomization in the electrospray step is carried out using a capillary~~
~~having~~ has a tip portion of 100 μm or more in inner diameter.

13. (Currently Amended) The immobilization method as described in claim 1,
~~wherein the electrospray step comprises the steps of~~ electrospraying further comprises:
_____ performing the electrostatic atomization while providing a minute range of a
periodic change in voltage applied on the solution to distinguish an electrostatic atomization
state and a gas discharging state, and
_____ ~~monitors~~ monitoring an amount of change in current value of the solution
using an ampere meter.

14-18. (Canceled)

19. (Currently Amended) The immobilization method as described in claim 1, wherein:

multiple capillaries are provided and each of the capillaries is connected with multiple tubes having their own valves, and

~~the electrospray step comprises the step of~~electrospraying further comprises:
_____ individually opening or closing the valve to concentrate a pressure force of the solution to at least only one of the capillaries so that degassing and/or dipping can be easily performed.

20-23. (Canceled)

24. (Currently Amended) The immobilization method as described in ~~claim 23~~
claim 1, further comprising ~~the step of:~~

carrying out pressure reduction or evacuation in the inside of ~~the a~~ case
surrounding a space in which at least both the electrostatic atomization and the
immobilization is carried out.

25. (Withdrawn-Currently Amended) An immobilization apparatus, comprising:
means for electrospraying, by which a solution containing at least one
objective substance is supplied into a capillary and an electric voltage is then applied on the
solution to allow electrostatic atomization thereof; and

means for supporting an object, ~~which is to be coated and has an arbitrary~~
~~shape, on which~~ with the objective substance ~~is immobilized~~ in a dried state by applying an
electrostatic force while retaining functionality and activity of the objective substance to form
a dried microstructure having a thickness on the order of nanometers; ~~and~~
~~_____ at least one of means for shifting the capillary, means for changing the angle of~~
~~the capillary to an arbitrary angle, or means for shifting the object to be coated~~

wherein:

the means for electro spraying comprises at least one of a means for shifting the capillary, changing a direction of spray by arbitrarily changing an angle of the capillary, or shifting the object to be coated; and

the means for electro spraying further comprises means for adjusting a flow rate of the solution so as to establish the following constant relational expression between a pressure and the flow rate:

$$P=b(V_c-V)+c, \text{ wherein:}$$

P represents pressure,

B and c represent constants,

V represents actual discharge volume, and

V_c represents a volume indicating value and V_c = at,
where a is a constant and t is an amount of time,

so that the objective substance is uniformly accumulated on a more extent area of the material to be coated.

26. (Withdrawn) The immobilization apparatus as described in claim 25, wherein
the means for electro spraying performs electrostatic atomization while
providing a minute range of a periodic change in voltage applied on the solution, and
the immobilization apparatus further includes means for measuring a current,
which monitors an amount of change in current value of the solution.

27. (Currently Amended) A method of manufacturing a microstructure having a thickness on the order of nanometers, comprising the steps of:
~~carrying out electro spray by which~~ electro spraying a solution containing at least one objective substance suitable for ~~the formation of~~ forming a fiber is supplied by supplying the solution into a capillary and applying an electric voltage ~~is then applied on~~ to the solution to allow electrostatic atomization thereof; and

electrostatically immobilizing the objective substance in the atomized solution ~~atomized by the electrospray step~~ on an object, ~~which is to be coated and has an arbitrary shape,~~ in ~~the~~ dry state while retaining ~~the~~ functionality and/or activity of the objective substance to form a dried fibrous microstructure having a thickness on the order of nanometers;

wherein:

electrospraying further comprises at least one of shifting the capillary, changing a direction of spray by arbitrarily changing an angle of the capillary, and shifting the object to be coated; and

electrospraying further comprises adjusting a flow rate of the solution so as to establish the following constant relational expression between a pressure and the flow rate:

$P=b(V_c-V)+c$, wherein:

P represents pressure,

B and c represent constants,

V represents actual discharge volume, and

V_c represents a volume indicating value and $V_c = at$,

where a is a constant and t is an amount of time,

so that the objective substance is uniformly accumulated on a

more extent area of the material to be coated.